

116TH CONGRESS
2D SESSION

H. R. 9036

To amend title VI of the Public Utility Regulatory Policies Act of 1978 to establish a Federal renewable electricity standard for retail electricity suppliers and a Federal energy efficiency resource standard for retail electricity suppliers and retail natural gas suppliers, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 18, 2020

Mr. WELCH (for himself, Ms. CLARKE of New York, and Mr. LUJÁN) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To amend title VI of the Public Utility Regulatory Policies Act of 1978 to establish a Federal renewable electricity standard for retail electricity suppliers and a Federal energy efficiency resource standard for retail electricity suppliers and retail natural gas suppliers, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; FINDINGS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 “American Renewable Energy and Efficiency Act”.

1 (b) FINDINGS.—Congress finds that—

2 (1) the Federal renewable electricity standard
3 established by section 610 of the Public Utility Reg-
4 ulatory Policies Act of 1978 (as added by this Act)
5 establishes a market-based policy to create ongoing
6 competition among renewable electricity generators
7 across the United States and provide the greatest
8 quantity of clean electricity for the lowest price;

9 (2) the United States has vast wind, solar, hy-
10 dropower, biomass, and geothermal resources that—

11 (A) are renewable;

12 (B) are dispersed widely across different
13 regions of the United States; and

14 (C) can be harnessed to generate a signifi-
15 cant share of electricity in the United States;

16 (3) the Federal energy efficiency resource
17 standard established by section 611 of the Public
18 Utility Regulatory Policies Act of 1978 (as added by
19 this Act)—

20 (A) establishes nationwide minimum levels
21 of electricity and natural gas savings to be
22 achieved through utility efficiency programs,
23 building energy codes, appliance standards, and
24 related efficiency measures; and

1 (B) rewards energy-saving improvements
 2 achieved through—

3 (i) end-use energy efficiency upgrades;

4 (ii) reduced losses in transmission and
 5 distribution of energy; and

6 (iii) fuel switching, to the extent that
 7 the switching results in reduced primary
 8 energy use; and

9 (4) in light of the cost-effective energy effi-
 10 ciency opportunities that exist across the United
 11 States in every sector of the economy, retail elec-
 12 tricity suppliers, retail natural gas suppliers, and
 13 States should—

14 (A) include energy efficiency as a resource
 15 in utility planning and procurement activities;
 16 and

17 (B) seek to achieve all energy efficiency
 18 measures that are available at lower cost than
 19 other energy supply options.

20 **SEC. 2. FEDERAL RENEWABLE ELECTRICITY STANDARD.**

21 Title VI of the Public Utility Regulatory Policies Act
 22 of 1978 (16 U.S.C. 2601 et seq.) is amended by adding
 23 after section 609 (7 U.S.C. 918c) the following:

24 **“SEC. 610. FEDERAL RENEWABLE ELECTRICITY STANDARD.**

25 **“(a) DEFINITIONS.—**In this section:

1 “(1) FEDERAL RENEWABLE ELECTRICITY
2 CREDIT.—The term ‘Federal renewable electricity
3 credit’ means a credit, that represents, for purposes
4 of compliance with this section, 1 megawatt hour of
5 renewable electricity, issued pursuant to subsection
6 (e).

7 “(2) IMPACTED COMMUNITY.—The term ‘im-
8 pacted community’ means—

9 “(A) an economically distressed area af-
10 fected by environmental pollution or other haz-
11 ards that can lead to—

12 “(i) exposure to the pollution or haz-
13 ard, including negative public health ef-
14 fects resulting from that exposure; or

15 “(ii) environmental degradation; or

16 “(B) an economically distressed area af-
17 fected by high unemployment due to—

18 “(i) a significant decline in coal min-
19 ing activity; or

20 “(ii) the closure of a coal-fired power
21 plant.

22 “(3) INDIAN LAND.—The term ‘Indian land’
23 means—

24 “(A) any land within the limits of any In-
25 dian reservation, pueblo, or rancheria;

1 “(B) any land not within the limits of any
2 Indian reservation, pueblo, or rancheria title to
3 which on the date of enactment of this section
4 was held by—

5 “(i) the United States for the benefit
6 of any Indian Tribe or individual; or

7 “(ii) any Indian Tribe or individual
8 subject to restriction by the United States
9 against alienation;

10 “(C) any dependent Indian community; or

11 “(D) any land conveyed under the Alaska
12 Native Claims Settlement Act to any Native
13 Corporation (as that term is defined in section
14 3 of that Act).

15 “(4) INDIAN TRIBE.—The term ‘Indian Tribe’
16 means any Indian Tribe, band, nation, or other or-
17 ganized group or community (including any Native
18 village, Regional Corporation, or Village Corporation
19 (as those terms are defined in section 3 of the Alas-
20 ka Native Claims Settlement Act)) that is recognized
21 as eligible for the special programs and services pro-
22 vided by the United States to Indians because of
23 their status as Indians.

24 “(5) QUALIFIED HYDROPOWER.—The term
25 ‘qualified hydropower’ means energy produced from

1 generating capacity added to a dam on or after Jan-
2 uary 1, 2001, if the Commission certifies that—

3 “(A) the dam—

4 “(i) was placed in service before the
5 date of enactment of this section;

6 “(ii) was operated for flood control,
7 navigation, or water supply purposes; and

8 “(iii) was not producing hydroelectric
9 power prior to the addition of the capacity;
10 and

11 “(B) the hydroelectric project installed on
12 the dam—

13 “(i) is licensed or is exempt from li-
14 censing by the Commission;

15 “(ii) is in compliance with—

16 “(I) the terms and conditions of
17 the license or exemption; and

18 “(II) other applicable legal re-
19 quirements for the protection of envi-
20 ronmental quality, including applica-
21 ble fish passage requirements; and

22 “(iii) is operated so that the water
23 surface elevation at any given location and
24 time that would have occurred in the ab-
25 sence of the hydroelectric project is main-

1 tained, subject to any license or exemption
2 requirements that require changes in water
3 surface elevation for the purpose of im-
4 proving the environmental quality of the
5 affected waterway.

6 “(6) QUALIFIED RENEWABLE BIOMASS.—The
7 term ‘qualified renewable biomass’ means renewable
8 biomass that, when combusted, yields, on a weight-
9 ed-average basis, at least 50 percent less lifecycle
10 greenhouse gas emissions (as defined in section 4(a)
11 of the American Renewable Energy and Efficiency
12 Act) per unit of useful energy, than the lifecycle
13 greenhouse gas emissions, including methane leak-
14 age, from the generation of such unit of useful en-
15 ergy by a combined cycle natural gas electric gener-
16 ating unit using the most efficient commercially
17 available technology (based on lifecycle greenhouse
18 gas emissions).

19 “(7) RENEWABLE BIOMASS.—The term ‘renew-
20 able biomass’ means—

21 “(A) crop byproducts or crop residues har-
22 vested from actively managed or fallow agricul-
23 tural land that is cleared prior to the date of
24 enactment of this section;

1 “(B) planted trees, brush, slash, and resi-
2 dues from an actively managed tree farm dedi-
3 cated to energy crop production and located on
4 land cleared prior to the date of enactment of
5 this section;

6 “(C) byproducts of wood or paper mill op-
7 erations, including lignin in spent pulping liq-
8 uors;

9 “(D) algae;

10 “(E) nonhazardous plant matter derived
11 from waste—

12 “(i) including separated yard waste,
13 landscape right-of-way trimmings, or food
14 waste; but

15 “(ii) not including municipal solid
16 waste, recyclable waste paper, painted,
17 treated or pressurized wood, or wood con-
18 taminated with plastic or metals; and

19 “(F) vegetative matter removed from with-
20 in 200 yards of any manmade structure or
21 campground for the purposes of protecting
22 structures from wildfire.

23 “(8) RENEWABLE ELECTRICITY.—The term ‘re-
24 newable electricity’ means electricity generated (in-

cluding by means of a fuel cell) from a renewable energy resource.

“(9) RENEWABLE ENERGY RESOURCE.—The term ‘renewable energy resource’ means each of the following:

“(A) Wind energy.

“(B) Solar energy.

“(C) Geothermal energy.

“(D) Qualified renewable biomass.

“(E) Biogas derived from qualified renewable biomass.

“(F) Biofuel derived from qualified renewable biomass.

“(G) Biogas derived from anaerobic digestion at wastewater treatment facilities or from farms through anaerobic digesters.

“(H) Qualified hydropower.

“(I) Marine and hydrokinetic renewable energy (as defined in section 632 of the Energy Independence and Security Act of 2007).

“(J) Landfill gas.

“(10) RETAIL ELECTRICITY SUPPLIER.—

“(A) IN GENERAL.—The term ‘retail electricity supplier’ means, for any calendar year, an electric utility that sells not fewer than

1 1,000,000 megawatt hours of electricity to elec-
2 tric consumers during the preceding calendar
3 year.

4 “(B) INCLUSIONS AND LIMITATIONS.—For
5 purposes of determining whether an electric
6 utility qualifies as a retail electricity supplier
7 under subparagraph (A)—

8 “(i) the sales made by any affiliate of
9 the electric utility to electric consumers,
10 other than sales to lessees or tenants of
11 the affiliate, shall be considered to be sales
12 made by the electric utility; and

13 “(ii) sales made by the electric utility
14 to an affiliate, lessee, or tenant of the elec-
15 tric utility shall not be treated as sales to
16 electric consumers.

17 “(C) AFFILIATE.—In this paragraph, the
18 term ‘affiliate’ when used in relation to a per-
19 son, means another person that directly or indi-
20 rectly owns or controls, is owned or controlled
21 by, or is under common ownership or control
22 with, that person, as determined under regula-
23 tions promulgated by the Commission.

24 “(11) RETAIL ELECTRICITY SUPPLIER’S BASE
25 QUANTITY.—The term ‘retail electricity supplier’s

1 base quantity’ means the total quantity of electricity
2 sold by the retail electricity supplier, expressed in
3 megawatt hours, to electric consumers during the
4 relevant calendar year, excluding—

5 “(A) electricity generated by a hydro-
6 electric facility, other than qualified hydro-
7 power; and

8 “(B) electricity generated by the combus-
9 tion of municipal solid waste.

10 “(12) RETIRE AND RETIREMENT.—The terms
11 ‘retire’ and ‘retirement’ with respect to a Federal re-
12 newable electricity credit, mean to disqualify the
13 credit for any subsequent use under this section, re-
14 gardless of whether the use is a sale, transfer, ex-
15 change, or submission in satisfaction of a compliance
16 obligation.

17 “(b) ANNUAL COMPLIANCE OBLIGATION.—Except as
18 otherwise provided in subsection (f), for each of calendar
19 years 2021 through 2039, not later than March 31 of the
20 following calendar year, each retail electricity supplier
21 shall submit to the Commission a quantity of Federal re-
22 newable electricity credits that represents a quantity of
23 megawatt hours of renewable electricity that is at least
24 equal to the annual target of the retail electricity supplier
25 under subsection (d).

1 “(c) ESTABLISHMENT.—

2 “(1) IN GENERAL.—Not later than 1 year after
3 the date of enactment of this section, the Commis-
4 sion shall promulgate regulations to implement and
5 enforce the requirements of this section.

6 “(2) CONSIDERATIONS.—In promulgating regu-
7 lations under paragraph (1), the Commission shall,
8 to the maximum extent practicable—

9 “(A) preserve the integrity and incorporate
10 best practices of existing State and tribal re-
11 newable electricity programs;

12 “(B) preserve the integrity of voluntary re-
13 newable energy markets;

14 “(C) delegate to an appropriate market-
15 making entity the administration of a national
16 tradeable Federal renewable electricity credit
17 market for purposes of creating a transparent
18 national market for the sale or trade of Federal
19 renewable electricity credits, relying on existing
20 and emerging State, tribal, or regional tracking
21 systems that issue and track non-Federal re-
22 newable electricity credits; and

23 “(D) cooperate with States and Indian
24 Tribes—

1 “(i) to facilitate coordination between
2 State, tribal, and Federal renewable elec-
3 tricity programs; and

4 “(ii) to minimize administrative bur-
5 dens and costs to retail electricity sup-
6 pliers.

7 “(d) ANNUAL COMPLIANCE REQUIREMENT.—

8 “(1) ANNUAL TARGETS.—For each of calendar
9 years 2021 through 2039, the annual target of a re-
10 tail electricity supplier shall be equal to the number
11 of megawatt hours that is equal to the product ob-
12 tained by multiplying—

13 “(A) the required annual percentage for
14 that calendar year under paragraph (2); and

15 “(B) the retail electricity supplier’s base
16 quantity for that calendar year.

17 “(2) REQUIRED ANNUAL PERCENTAGE.—

18 “(A) CALENDAR YEARS 2021 THROUGH
19 2030.—For each of calendar years 2021 through
20 2030, the required annual percentage shall be
21 as follows:

| “Year: | Required annual percentage: |
|---------------|--|
| 2021 | 21.0 |
| 2022 | 24.5 |
| 2023 | 28.0 |
| 2024 | 31.5 |
| 2025 | 35.0 |
| 2026 | 39.0 |
| 2027 | 43.0 |
| 2028 | 47.0 |
| 2029 | 51.0 |
| 2030 | 55.0 |

1 “(B) CALENDAR YEARS 2031 THROUGH
2 2039.—

3 “(i) INCREASE.—Except as provided
4 in clause (ii), for each of calendar years
5 2031 through 2039, the required annual
6 percentage shall be equal to the required
7 annual percentage for the previous cal-
8 endar year plus 4 percentage points.

9 “(ii) FEASIBILITY.—

10 “(I) ADJUSTMENT.—Except as
11 provided in subclause (II), for any of
12 calendar years 2031 through 2039,
13 the Commission may increase or de-
14 crease the 4 percentage point increase
15 required under clause (i) if the Com-
16 mission determines necessary based
17 on technical and economic feasibility
18 studies or other equivalent means.

1 “(II) EXCEPTION.—For each of
2 calendar years 2031 through 2039,
3 the percentage point increase required
4 under this subparagraph for the re-
5 quired annual percentage shall be
6 greater than zero.

7 “(e) FEDERAL RENEWABLE ELECTRICITY CRED-
8 ITS.—

9 “(1) IN GENERAL.—

10 “(A) ISSUANCE; TRACKING;
11 VERIFICATION.—The regulations promulgated
12 under this section shall include provisions gov-
13 erning the issuance, tracking, and verification
14 of Federal renewable electricity credits.

15 “(B) CREDIT RATIO.—Except as provided
16 in paragraphs (2) through (4), the Commission
17 shall issue to each generator of renewable elec-
18 tricity 1 Federal renewable electricity credit for
19 each megawatt hour of renewable electricity
20 generated by the generator after December 31,
21 2020.

22 “(C) SERIAL NUMBER.—The Commission
23 shall assign a unique serial number to each
24 Federal renewable electricity credit.

1 “(2) GENERATION FROM CERTAIN STATE RE-
2 NEWABLE ELECTRICITY PROGRAMS.—

3 “(A) IN GENERAL.—If renewable elec-
4 tricity is generated with the support of pay-
5 ments from a retail electricity supplier pursuant
6 to a State renewable electricity program
7 (whether through State alternative compliance
8 payments or through payments to a State re-
9 newable electricity procurement fund or entity),
10 the Commission shall issue Federal renewable
11 electricity credits to the retail electricity sup-
12 plier for the portion of the relevant renewable
13 electricity generation that is attributable to pay-
14 ments made by the retail electricity supplier, as
15 determined pursuant to regulations promul-
16 gated by the Commission.

17 “(B) REMAINING PORTION.—For any re-
18 maining portion of the relevant renewable elec-
19 tricity generation, the Commission shall issue
20 Federal renewable electricity credits to the gen-
21 erator, as provided in paragraph (1), except
22 that not more than 1 Federal renewable elec-
23 tricity credit shall be issued for the same mega-
24 watt hour of electricity.

1 “(C) STATE GUIDANCE.—In determining
2 how Federal renewable electricity credits will be
3 apportioned among retail electricity suppliers
4 and generators under this paragraph, the Com-
5 mission shall consider information and guidance
6 issued by the applicable one or more States.

7 “(3) CERTAIN POWER SALES CONTRACTS.—Ex-
8 cept as otherwise provided in paragraph (2), if a
9 generator has sold renewable electricity to a retail
10 electricity supplier under a contract for power from
11 a facility placed in service before the date of enact-
12 ment of this section, and the contract does not pro-
13 vide for the determination of ownership of the Fed-
14 eral renewable electricity credits associated with the
15 generation, the Commission shall issue the Federal
16 renewable electricity credits to the retail electricity
17 supplier for the duration of the contract.

18 “(4) CREDIT MULTIPLIERS.—

19 “(A) IN GENERAL.—Except as provided in
20 subparagraph (B), the Commission shall
21 issue—

22 “(i) not more than 2 Federal renew-
23 able electricity credits for each megawatt
24 hour of renewable electricity generated in a

community that the Commission determines is an impacted community; and

“(ii) not more than 2 Federal renewable electricity credits for each megawatt hour of renewable electricity generated on Indian land.

“(B) ADJUSTMENT.—Except as provided in subparagraph (C), not later than January 1, 2023, and not less frequently than every 4 years thereafter, the Commission shall review the effect on the aggregate quantity of renewable electricity generated as a result of providing credit multipliers under this paragraph and shall, as necessary and after providing 1 year of notice, reduce the number of Federal renewable electricity credits issued under this paragraph per megawatt hour of renewable electricity generated by any given energy source or facility, but not below one, to ensure that the number is no higher than the Commission determines is necessary to incentivize incremental renewable energy generation in impacted communities and on Indian land.

“(C) FACILITIES PLACED IN SERVICE AFTER ENACTMENT.—

1 “(i) IN GENERAL.—For any renewable
2 electricity generation facility placed in
3 service after the date of enactment of this
4 section, subparagraph (B) shall not apply
5 for the first 10 years after the date on
6 which the facility is placed in service.

7 “(ii) INITIAL PERIOD.—For each year
8 during the 10-year period described in
9 clause (i), the Commission shall issue to
10 the facility the same number of Federal re-
11 newable electricity credits per megawatt
12 hour generated as are issued to that facil-
13 ity in the year in which the facility is
14 placed in service.

15 “(iii) SUBSEQUENT PERIOD.—After
16 the 10-year period described in clause (i),
17 the Commission shall issue Federal renew-
18 able electricity credits to the facility in ac-
19 cordance with subparagraph (B).

20 “(5) CREDITS BASED ON QUALIFIED HYDRO-
21 POWER.—For purposes of this subsection, the num-
22 ber of megawatt hours of renewable electricity gen-
23 eration from qualified hydropower shall be cal-
24 culated—

1 “(A) based solely on the increase in aver-
2 age annual generation directly resulting from
3 the efficiency improvements or capacity addi-
4 tions described in subsection (a)(5)(A); and

5 “(B) using the same water flow informa-
6 tion used to determine a historic average an-
7 nual generation baseline for the hydroelectric
8 facility, as certified by the Commission.

9 “(6) GENERATION FROM MIXED RENEWABLE
10 AND NONRENEWABLE RESOURCES.—If electricity is
11 generated using both a renewable energy resource
12 and an energy source that is not a renewable energy
13 resource (such as cofiring of renewable biomass and
14 fossil fuel), the Commission shall issue Federal re-
15 newable electricity credits based on the proportion of
16 the electricity generated that is attributable to the
17 renewable energy resource.

18 “(7) PROHIBITION AGAINST DOUBLE-COUNT-
19 ING.—The Commission shall ensure that—

20 “(A) no Federal renewable electricity cred-
21 it is used more than once for compliance with
22 this section; and

23 “(B) except as provided in paragraph (4),
24 not more than 1 Federal renewable electricity

1 credit is issued for any megawatt hour of re-
2 newable electricity generated.

3 “(8) TRADING.—The lawful holder of a Federal
4 renewable electricity credit may—

5 “(A) sell, exchange, or transfer the credit;

6 “(B) submit the credit for compliance
7 under subsection (b); or

8 “(C) submit the credit for retirement by
9 the Commission.

10 “(9) BANKING.—

11 “(A) IN GENERAL.—A Federal renewable
12 electricity credit may be submitted in satisfac-
13 tion of the compliance obligation under sub-
14 section (b) for the compliance year in which the
15 credit was issued or for any of the 3 imme-
16 diately subsequent compliance years.

17 “(B) RETIREMENT.—The Commission
18 shall retire any Federal renewable electricity
19 credit that has not been retired by April 2 of
20 the calendar year that is 3 years after the cal-
21 endar year during which the credit was issued.

22 “(10) RETIREMENT.—The Commission shall re-
23 tire a Federal renewable electricity credit imme-
24 diately upon submission by the lawful holder of the

1 credit, whether in satisfaction of a compliance obli-
2 gation under subsection (b) or for another reason.

3 “(f) ALTERNATIVE COMPLIANCE PAYMENTS.—

4 “(1) IN GENERAL.—A retail electricity supplier
5 may satisfy the requirements of subsection (b) in
6 whole or in part by submitting in accordance with
7 this subsection, in lieu of each Federal renewable
8 electricity credit that would otherwise be submitted,
9 an alternative compliance payment equal to \$50, ad-
10 justed for inflation on January 1 of each year fol-
11 lowing calendar year 2021, in accordance with regu-
12 lations promulgated by the Commission.

13 “(2) PAYMENT TO STATE FUNDS.—

14 “(A) IN GENERAL.—Except as otherwise
15 provided in this paragraph, payments made
16 under this subsection shall be made directly to
17 one or more States in which the retail elec-
18 tricity supplier sells electricity, in proportion to
19 the portion of the retail electricity supplier’s
20 base quantity that is sold within each applicable
21 State, if—

22 “(i) the payments are deposited di-
23 rectly into a fund of the State treasury es-
24 tablished for that purpose; and

1 “(ii) the State uses the funds in ac-
2 cordance with paragraphs (3) and (4).

3 “(B) NONCOMPLIANCE.—If the Commis-
4 sion determines that a State is in substantial
5 noncompliance with paragraph (3) or (4), the
6 Commission shall direct that any future alter-
7 native compliance payments that would other-
8 wise be paid to the State under this subsection
9 shall instead be paid to the Commission and de-
10 posited in the Treasury.

11 “(3) STATE USE OF FUNDS.—As a condition of
12 receipt of alternative compliance payments under
13 this subsection, a State shall use the payments ex-
14 clusively for—

15 “(A) deploying technologies that generate
16 electricity from renewable energy resources; or

17 “(B) implementing cost-effective energy ef-
18 ficiency programs to achieve energy savings.

19 “(4) REPORTING.—

20 “(A) IN GENERAL.—As a condition of re-
21 ceipt of alternative compliance payments pursu-
22 ant to this subsection, a State shall submit to
23 the Commission an annual report, in accord-
24 ance with regulations promulgated by the Com-
25 mission, containing a full accounting of the use

1 of the payments, including a detailed descrip-
2 tion of the activities funded by the payments
3 and demonstrating compliance with the require-
4 ments of this subsection.

5 “(B) DEADLINE.—A State shall submit a
6 report under this paragraph—

7 “(i) not later than 1 year after the
8 date on which the first alternative compli-
9 ance payment is received; and

10 “(ii) every 1 year thereafter until all
11 alternative compliance payments are ex-
12 pended.

13 “(g) INFORMATION COLLECTION.—The Commission
14 may require any retail electricity supplier, renewable elec-
15 tricity generator, or any other entity that the Commission
16 determines appropriate, to provide any information the
17 Commission determines appropriate to carry out this sec-
18 tion.

19 “(h) ENFORCEMENT AND JUDICIAL REVIEW.—

20 “(1) FAILURE TO SUBMIT CREDITS.—If any
21 person fails to comply with the requirements of sub-
22 section (b) or (f) for a calendar year, the person
23 shall be liable to pay to the Commission a civil pen-
24 alty equal to the product obtained by multiplying—

1 “(A) double the alternative compliance
2 payment calculated under subsection (f)(1) for
3 such calendar year; and

4 “(B) the aggregate quantity of Federal re-
5 newable electricity credits or equivalent alter-
6 native compliance payments that the person
7 failed to submit in violation of the requirements
8 of subsections (b) and (f) for such calendar
9 year.

10 “(2) ENFORCEMENT.—The Commission shall
11 assess a civil penalty under paragraph (1) in accord-
12 ance with the procedures described in section 31(d)
13 of the Federal Power Act.

14 “(3) VIOLATION OF REQUIREMENT OF REGULA-
15 TIONS OR ORDERS.—

16 “(A) IN GENERAL.—Any person who vio-
17 lates or fails or refuses to comply with any re-
18 quirement of this section, other than a require-
19 ment of subsection (b) or (f), shall be subject
20 to a civil penalty under section 316A(b) of the
21 Federal Power Act.

22 “(B) ASSESSMENT.—The penalty under
23 subparagraph (A) shall be assessed by the Com-
24 mission in the same manner as in the case of

1 a violation referred to in section 316A(b) of
2 that Act.

3 “(4) JUDICIAL REVIEW.—

4 “(A) IN GENERAL.—Any person aggrieved
5 by a final action taken by the Commission
6 under this section, other than the assessment of
7 a civil penalty under paragraphs (1) through
8 (3), may use the procedures for review de-
9 scribed in section 313 of the Federal Power
10 Act.

11 “(B) REFERENCE.—For purposes of this
12 paragraph, references to an order in section
13 313 of that Act shall be considered to refer also
14 to all other final actions of the Commission
15 under this section other than the assessment of
16 a civil penalty under paragraphs (1) through
17 (3).

18 “(i) ADMINISTRATION.—Nothing in this section—

19 “(1) diminishes or qualifies any authority of a
20 State, a political subdivision of a State, or an Indian
21 Tribe—

22 “(A) to adopt or enforce any law or regula-
23 tion respecting renewable electricity, including
24 any law or regulation establishing requirements
25 that are more stringent than those established

1 by this section, provided that no such law or
 2 regulation may relieve any person of any re-
 3 quirement otherwise applicable under this sec-
 4 tion; or

5 “(B) to regulate the acquisition and dis-
 6 position of Federal renewable electricity credits
 7 by retail electricity suppliers within the jurisdic-
 8 tion of the State, political subdivision, or Indian
 9 Tribe, including the authority to require the re-
 10 tail electricity supplier to acquire and submit to
 11 the Commission for retirement Federal renew-
 12 able electricity credits in excess of those sub-
 13 mitted under this section; or

14 “(2) affects the application of or the responsi-
 15 bility for compliance with any other provision of law
 16 or regulation.”.

17 **SEC. 3. CLARIFYING STATE AUTHORITY TO ADOPT RENEW-**
 18 **ABLE ENERGY INCENTIVES.**

19 Section 210 of the Public Utility Regulatory Policies
 20 Act of 1978 (16 U.S.C. 824a–3) is amended by adding
 21 at the end the following:

22 “(o) CLARIFICATION OF STATE AUTHORITY TO
 23 ADOPT RENEWABLE ENERGY INCENTIVES.—

24 “(1) DEFINITION OF STATE-APPROVED PRO-
 25 Duction Incentive Program.—In this subsection,

the term ‘State-approved production incentive program’ means a requirement imposed pursuant to State law or by a State regulatory authority acting within its authority under State law that an electric utility purchase renewable energy (as defined in section 609(a)) at a specified rate.

“(2) STATE AUTHORITY TO ADOPT RENEWABLE ENERGY INCENTIVES.—Notwithstanding any other provision of this Act or the Federal Power Act, a State law or State regulatory authority may set the rates for a sale of electricity by a facility generating renewable energy (as defined in section 609(a)) pursuant to a State-approved production incentive program under which the facility voluntarily participates in the State-approved production incentive program.”.

SEC. 4. GUIDELINES FOR DETERMINING QUALIFIED RENEWABLE BIOMASS.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term “Administrator” means the Administrator of the Environmental Protection Agency.

(2) LIFECYCLE GREENHOUSE GAS EMISSIONS.—

1 (A) IN GENERAL.—The term “lifecycle
2 greenhouse gas emissions” means the aggregate
3 quantity of greenhouse gas emissions, adjusted
4 to account for the relative global warming po-
5 tential of the emissions relative to all green-
6 house gas emissions.

7 (B) INCLUSIONS.—For purposes of sub-
8 paragraph (A), the term “greenhouse gas emis-
9 sions” includes—

- 10 (i) direct emissions; and
11 (ii) significant indirect emissions, in-
12 cluding from—

13 (I) land use changes and tem-
14 poral changes in forest carbon seques-
15 tration;

16 (II) biomass harvests, regrowth,
17 and avoided decomposition related to
18 the full fuel lifecycle, including all
19 stages of fuel and feedstock produc-
20 tion and distribution; and

21 (III) feedstock generation or ex-
22 traction through the distribution and
23 delivery of the finished fuel to the ul-
24 timate consumer.

1 (b) GUIDELINES.—Not later than 1 year after the
 2 date of enactment of this Act, the Administrator shall, rec-
 3 ognizing the recommendations of, and coordinating with,
 4 the Scientific Advisory Board of the Environmental Pro-
 5 tection Agency regarding the accounting of biogenic car-
 6 bon dioxide emissions, and after notice and public com-
 7 ment, issue guidelines for calculating lifecycle greenhouse
 8 gas emissions for renewable biomass (as that term is de-
 9 fined in section 610(a) of the Public Utility Regulatory
 10 Policies Act of 1978, as added by this Act).

11 **SEC. 5. ENERGY EFFICIENCY RESOURCE STANDARD FOR**
 12 **RETAIL ELECTRICITY AND NATURAL GAS**
 13 **SUPPLIERS.**

14 (a) IN GENERAL.—Title VI of the Public Utility Reg-
 15 ulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.) is
 16 further amended by adding at the end the following:

17 **“SEC. 611. FEDERAL ENERGY EFFICIENCY RESOURCE**
 18 **STANDARD FOR RETAIL ELECTRICITY AND**
 19 **NATURAL GAS SUPPLIERS.**

20 “(a) DEFINITIONS.—In this section:

21 “(1) AFFILIATE.—The term ‘affiliate’ when
 22 used in relation to a person, means another person
 23 that owns or controls, is owned or controlled by, or
 24 is under common ownership control with, that per-

son, as determined under regulations promulgated by the Secretary.

“(2) ASHRAE, ANSI, AND IESNA.—The terms ‘ASHRAE’, ‘ANSI’, and ‘IESNA’ mean the American Society of Heating, Refrigerating and Air Conditioning Engineers, the American National Standards Institute, and the Illuminating Engineering Society of North America, respectively.

“(3) BASE QUANTITY.—

“(A) IN GENERAL.—The term ‘base quantity’, with respect to a retail electricity supplier or retail natural gas supplier, means, for each calendar year for which a performance standard is established under subsection (c), the average annual quantity of electricity delivered by the retail electricity supplier to electric consumers, or quantity of natural gas delivered by the retail natural gas supplier to natural gas consumers, during the 3 calendar years immediately preceding the year that compliance is required under subsection (c)(1).

“(B) EXCLUSION.—The term ‘base quantity’, with respect to a retail natural gas supplier, does not include natural gas delivered for purposes of electricity generation.

1 “(4) CHP SAVINGS.—The term ‘CHP savings’
2 means—

3 “(A) CHP system savings from a combined
4 heat and power system that commences oper-
5 ation after the date of enactment of this sec-
6 tion; and

7 “(B) the increase in CHP system savings
8 from upgrading or replacing, after the date of
9 enactment of this section, a combined heat and
10 power system that commenced operation on or
11 before the date of enactment of this section.

12 “(5) CHP SYSTEM SAVINGS.—The term ‘CHP
13 system savings’ means the electric output, and the
14 electricity saved due to the mechanical output, of a
15 combined heat and power system, adjusted to reflect
16 any increase in fuel consumption by that system as
17 compared to the fuel that would have been required
18 to produce an equivalent useful thermal energy out-
19 put in a separate thermal-only system, as deter-
20 mined in accordance with regulations promulgated
21 by the Secretary.

22 “(6) CODES AND STANDARDS SAVINGS.—The
23 term ‘codes and standards savings’ means a reduc-
24 tion in electricity or natural gas consumption as a
25 result of the adoption and implementation, after the

1 date of enactment of this section, of new or revised
2 appliance and equipment efficiency standards or
3 building energy codes.

4 “(7) COMBINED HEAT AND POWER SYSTEM.—
5 The term ‘combined heat and power system’ means
6 a system that uses the same energy source both for
7 the generation of electrical or mechanical power and
8 the production of steam or another form of useful
9 thermal energy, if—

10 “(A) the system meets any requirements
11 relating to efficiency and other operating char-
12 acteristics that the Secretary promulgates by
13 regulation; and

14 “(B) the net wholesale sales of electricity
15 by a facility does not exceed 50 percent of total
16 annual electric generation by the facility.

17 “(8) COST-EFFECTIVE.—The term ‘cost-effec-
18 tive’, with respect to an energy efficiency program,
19 means that the program achieves a net present value
20 of economic benefits over the life of the implemented
21 measures, both directly to the energy consumer and
22 to the economy, that is greater than the net present
23 value of the cost of the program over the life of the
24 program, both directly to the energy consumer and
25 to the economy, using the societal benefit-cost test

1 calculated using the lower of a utility weighted aver-
2 age cost of capital or a social discount rate of 3 per-
3 cent.

4 “(9) CUSTOMER FACILITY SAVINGS.—The term
5 ‘customer facility savings’ means a reduction in elec-
6 tricity, or natural gas consumption, including waste
7 heat energy savings, at a facility of an electricity
8 consumer served by a retail electricity supplier or a
9 natural gas consumer served by a natural gas sup-
10 plier, as compared to—

11 “(A) in the case of new equipment that re-
12 places existing equipment with remaining useful
13 life—

14 “(i) consumption of the existing
15 equipment for the remaining useful life of
16 the equipment; and

17 “(ii) thereafter, consumption by new
18 equipment of average efficiency of the
19 same equipment type;

20 “(B) in the case of new equipment other
21 than new equipment described in subparagraph
22 (A), consumption by new equipment of average
23 efficiency of the same equipment type;

24 “(C) in the case of consumption, other
25 than consumption described in subparagraphs

1 (A) and (B), at an existing facility, consump-
2 tion at the facility during a base period of not
3 less than 1 year; and

4 “(D) in the case of consumption, other
5 than consumption described in subparagraphs
6 (A) and (B), at a new facility, consumption at
7 a reference new facility of average efficiency for
8 new facilities of the same type.

9 “(10) ELECTRICITY SAVINGS.—The term ‘elec-
10 tricity savings’ means reductions in electricity con-
11 sumption or losses, as determined in accordance
12 with regulations promulgated by the Secretary,
13 that—

14 “(A) are achieved through measures imple-
15 mented after the date of enactment of this sec-
16 tion;

17 “(B) are additional to business-as-usual
18 customer purchase practices and distribution
19 system efficiency;

20 “(C) the retail electricity supplier claiming
21 or transferring the electricity savings has
22 played a significant role in achieving;

23 “(D) occur in the service territory of the
24 retail electricity supplier claiming or transfer-
25 ring the electricity savings; and

1 “(E) are limited to—

2 “(i) customer facility savings of elec-
3 tricity, adjusted to reflect any associated
4 increase in fuel consumption at the facility;

5 “(ii) reductions in distribution system
6 losses of electricity achieved by a retail
7 electricity supplier, as compared to losses
8 that would occur with new distribution sys-
9 tem equipment of average efficiency;

10 “(iii) CHP savings;

11 “(iv) codes and standards savings of
12 electricity; and

13 “(v) fuel-switching energy savings
14 that results in net savings of electricity.

15 “(11) FUEL-SWITCHING ENERGY SAVINGS.—

16 “(A) IN GENERAL.—The term ‘fuel-switch-
17 ing energy savings’ means net energy savings,
18 calculated in accordance with subparagraph
19 (B), from consumer switches from 1 energy
20 source to another, as determined in accordance
21 with regulations promulgated by the Secretary.

22 “(B) CALCULATION.—For purposes of cal-
23 culating net energy savings under subparagraph
24 (A)—

1 “(i) electricity consumption shall be
2 evaluated based on the average additional
3 quantity of fuel burned at power plants to
4 supply each additional kilowatt-hour of
5 electricity consumption in the region;

6 “(ii) electricity and natural gas con-
7 sumption shall include losses in the trans-
8 mission and distribution systems; and

9 “(iii) fuel-switching that does not re-
10 sult in net cost savings to the consumer
11 shall not be counted.

12 “(12) NATURAL GAS SAVINGS.—The term ‘nat-
13 ural gas savings’ means reductions in natural gas
14 consumption or losses, as determined in accordance
15 with regulations promulgated by the Secretary,
16 that—

17 “(A) are achieved through measures imple-
18 mented after the date of enactment of this sec-
19 tion;

20 “(B) are additional to business-as-usual
21 customer purchase practices and distribution
22 system efficiency;

23 “(C) the retail natural gas supplier claim-
24 ing or transferring the natural gas savings has
25 played a significant role in achieving;

“(D) occur in the service territory of the retail natural gas supplier claiming or transferring the natural gas savings; and

“(E) are limited to—

“(i) customer facility savings of natural gas, adjusted to reflect any associated increase in electricity consumption or consumption of other fuels at the facility;

“(ii) reductions in leakage, operational losses, and consumption of natural gas to operate a gas distribution system, achieved by a retail natural gas supplier, as compared to similar leakage, losses, and consumption during a base period of not less than 1 year;

“(iii) codes and standards savings of natural gas; and

“(iv) fuel-switching energy savings that results in net savings of natural gas.

“(13) PERFORMANCE STANDARD.—The term ‘performance standard’ means a standard—

“(A) established for a calendar year for cumulative electricity savings or cumulative natural gas savings that is expressed as a percentage of base quantity; and

1 “(B) for each of calendar years 2021
2 through 2035, that is labeled as cumulative
3 electricity savings percentage or cumulative nat-
4 ural gas savings, as applicable, in the table
5 under subsection (c)(2).

6 “(14) POWER POOL.—The term ‘power pool’
7 means an association of two or more interconnected
8 electric systems that have entered into an agreement
9 to coordinate operations and planning for improved
10 reliability and efficiencies, including a Regional
11 Transmission Organization or an Independent Sys-
12 tem Operator, as determined by the Secretary.

13 “(15) REPORTING PERIOD.—The term ‘report-
14 ing period’ means—

15 “(A) calendar years 2021 through 2023;
16 and

17 “(B) each successive 2-calendar-year pe-
18 riod thereafter.

19 “(16) RETAIL ELECTRICITY SUPPLIER.—

20 “(A) IN GENERAL.—The term ‘retail elec-
21 tricity supplier’ means, for any calendar year,
22 an electric utility that delivered not fewer than
23 1,000,000 megawatt hours of electricity to elec-
24 tric consumers for purposes other than resale
25 during the preceding calendar year.

“(B) INCLUSIONS AND LIMITATIONS.—For purposes of determining whether an electric utility qualifies as a retail electricity supplier under subparagraph (A)—

“(i) deliveries by any affiliate of the electric utility to electric consumers for purposes other than resale shall be considered to be deliveries by the electric utility; and

“(ii) deliveries by any electric utility to a lessee, tenant, or affiliate of the electric utility shall not be considered to be deliveries to electric consumers.

“(17) RETAIL NATURAL GAS SUPPLIER.—

“(A) IN GENERAL.—The term ‘retail natural gas supplier’ means, for any given calendar year, a local distribution company (as defined in section 2 of the Natural Gas Policy Act of 1978), that delivered to natural gas consumers more than 5,000,000,000 cubic feet of natural gas for purposes other than resale during the preceding calendar year.

“(B) INCLUSIONS AND LIMITATIONS.—For purposes of determining whether a person

1 qualifies as a retail natural gas supplier under
2 subparagraph (A)—

3 “(i) deliveries of natural gas by any
4 affiliate of a local distribution company to
5 consumers for purposes other than resale
6 shall be considered to be deliveries by the
7 local distribution company; and

8 “(ii) deliveries of natural gas to a les-
9 see, tenant, or affiliate of a local distribu-
10 tion company shall not be considered to be
11 deliveries to natural gas consumers.

12 “(18) STATE REGULATORY AUTHORITY.—The
13 term ‘State regulatory authority’ means any State
14 agency which has ratemaking authority with respect
15 to—

16 “(A) the sale of natural gas by any gas
17 utility (other than by such State agency); or

18 “(B) the sale of electric energy by any
19 electric utility (other than such State agency),
20 and in the case of an electric utility with re-
21 spect to which the Tennessee Valley Authority
22 has ratemaking authority, such term means the
23 Tennessee Valley Authority.

24 “(19) THIRD-PARTY EFFICIENCY PROVIDER.—
25 The term ‘third-party efficiency provider’ means any

1 retailer, building owner, energy service company, fi-
2 nancial institution, or other commercial, industrial,
3 or nonprofit entity that is capable of providing elec-
4 tricity savings or natural gas savings in accordance
5 with subsections (d) and (e).

6 “(20) WASTE HEAT ENERGY SAVINGS.—

7 “(A) IN GENERAL.—The term ‘waste heat
8 energy savings’ means a reduction in electricity
9 or natural gas consumption that results from a
10 modification of an industrial or commercial sys-
11 tem that commenced operation before the date
12 of enactment of this section, in order to recap-
13 ture electrical, mechanical, or thermal energy
14 that would otherwise be wasted, as determined
15 in accordance with regulations promulgated by
16 the Secretary.

17 “(B) INCLUSION.—Waste heat energy sav-
18 ings shall be included as part of customer facil-
19 ity savings.

20 “(b) ESTABLISHMENT.—

21 “(1) REGULATIONS.—Not later than 1 year
22 after the date of enactment of this section, the Sec-
23 retary shall, by regulation, establish a program to
24 implement and enforce the requirements of this sec-
25 tion, including by—

1 “(A) establishing measurement and
2 verification procedures and standards under
3 subsection (e);

4 “(B) establishing requirements under
5 which retail electricity suppliers and retail nat-
6 ural gas suppliers shall—

7 “(i) demonstrate, document, and re-
8 port the compliance of the retail electricity
9 suppliers and retail natural gas suppliers
10 with the performance standards under sub-
11 section (e); and

12 “(ii) estimate the impact of the per-
13 formance standards on current and future
14 electricity and natural gas consumption in
15 the service territories of the suppliers; and

16 “(C) establishing requirements governing
17 applications for, and implementation of, State
18 programs under subsection (g).

19 “(2) COORDINATION WITH STATE PROGRAMS.—
20 In establishing and implementing this section, the
21 Secretary shall, to the maximum extent practicable,
22 preserve the integrity and incorporate best practices
23 of existing State energy efficiency programs.

24 “(c) PERFORMANCE STANDARDS.—

1 “(1) COMPLIANCE OBLIGATION.—Not later
2 than May 1 of the calendar year immediately fol-
3 lowing each reporting period—

4 “(A) each retail electricity supplier shall
5 submit to the Secretary a report, in accordance
6 with regulations promulgated by the Secretary,
7 demonstrating that such retail electricity sup-
8 plier has achieved cumulative electricity savings
9 (adjusted to account for any attrition of savings
10 from measures implemented in prior years) in
11 each calendar year of such reporting period that
12 are equal to or greater than the applicable per-
13 formance standard; and

14 “(B) each retail natural gas supplier shall
15 submit to the Secretary a report, in accordance
16 with regulations promulgated by the Secretary,
17 demonstrating that the retail natural gas sup-
18 plier has achieved cumulative natural gas sav-
19 ings from measures (adjusted to account for
20 any attrition of savings measures implemented
21 in prior years) in each calendar year of such re-
22 porting period that are equal to or greater than
23 the applicable performance standard.

24 “(2) PERFORMANCE STANDARDS FOR 2021
25 THROUGH 2035.—For each of calendar years 2021

1 through 2035, the performance standards are as fol-
 2 lows:

| “Calendar Year | Cumulative Electricity Savings Percentage | Cumulative Natural Gas Savings Percentage |
|----------------|---|---|
| 2021 | 1.00 | 0.50 |
| 2022 | 2.00 | 1.25 |
| 2023 | 3.00 | 2.00 |
| 2024 | 4.25 | 3.00 |
| 2025 | 5.50 | 4.00 |
| 2026 | 7.00 | 5.00 |
| 2027 | 8.50 | 6.00 |
| 2028 | 10.00 | 7.00 |
| 2029 | 11.50 | 8.00 |
| 2030 | 13.00 | 9.00 |
| 2031 | 14.75 | 10.00 |
| 2032 | 16.50 | 11.00 |
| 2033 | 18.25 | 12.00 |
| 2034 | 20.00 | 13.00 |
| 2035 | 22.00 | 14.00 |

3 “(3) SUBSEQUENT YEARS.—

4 “(A) CALENDAR YEARS 2036 THROUGH
 5 2045.—Not later than December 31, 2033, the
 6 Secretary shall promulgate regulations estab-
 7 lishing performance standards for each of cal-
 8 endar years 2036 through 2045.

9 “(B) SUBSEQUENT EXTENSIONS.—Except
 10 as provided in subparagraph (A), not later than
 11 the last day of the penultimate reporting period
 12 for which performance standards have been es-

1 tablished under this paragraph, the Secretary
2 shall promulgate regulations establishing per-
3 formance standards for the 10-calendar-year
4 period following the last calendar year for which
5 performance standards previously were estab-
6 lished.

7 “(C) REQUIREMENTS.—The Secretary
8 shall establish performance standards under
9 this paragraph at levels reflecting the maximum
10 achievable level of cost-effective energy effi-
11 ciency potential, taking into account—

12 “(i) cost-effective energy savings
13 achieved by leading retail electricity sup-
14 pliers and retail natural gas suppliers;

15 “(ii) opportunities for new codes and
16 standards savings;

17 “(iii) technology improvements; and

18 “(iv) other indicators of cost-effective
19 energy efficiency potential.

20 “(D) MINIMUM PERCENTAGE.—In no case
21 shall a performance standard established under
22 this paragraph for any calendar year be less
23 than the applicable performance standard for
24 calendar year 2035 (including any increase in

1 the standard for calendar year 2035 established
2 pursuant to paragraph (4)).

3 “(4) MIDCOURSE REVIEW AND ADJUSTMENT OF
4 PERFORMANCE STANDARDS.—

5 “(A) IN GENERAL.—Not later than De-
6 cember 31, 2029, and at 10-year intervals
7 thereafter, the Secretary shall—

8 “(i) review the most recent perform-
9 ance standards established under para-
10 graph (2) or (3); and

11 “(ii) increase the performance stand-
12 ards by regulation if the Secretary deter-
13 mines that additional cost-effective energy
14 efficiency potential is achievable, taking
15 into account the requirements described in
16 paragraph (3)(C).

17 “(B) LEAD TIME.—If the Secretary revises
18 performance standards under this paragraph,
19 the regulations shall provide adequate lead time
20 to ensure that compliance with the increased
21 performance standards is feasible.

22 “(5) DELAY OF SUBMISSION FOR FIRST RE-
23 PORTING PERIOD.—

24 “(A) IN GENERAL.—Notwithstanding
25 paragraphs (1) and (2), for the first reporting

1 period, the Secretary may accept a request from
2 a retail electricity supplier or a retail natural
3 gas supplier to delay the required submission of
4 documentation of all or part of the required
5 savings for up to 2 years.

6 “(B) PLAN FOR COMPLIANCE.—The re-
7 quest for delay under subparagraph (A) shall
8 include a plan for coming into full compliance
9 by the end of the second reporting period.

10 “(6) APPLYING UNUSED SAVINGS TO FUTURE
11 YEARS.—If electricity savings or natural gas savings
12 achieved by a retail electricity supplier or retail nat-
13 ural gas supplier in a year exceed the applicable per-
14 formance standard specified under this subsection,
15 any savings in excess of the performance standard
16 may be applied toward performance standards speci-
17 fied for any of the 2 immediately subsequent compli-
18 ance years.

19 “(d) TRANSFERS OF ELECTRICITY OR NATURAL GAS
20 SAVINGS.—

21 “(1) BILATERAL CONTRACTS FOR SAVINGS
22 TRANSFERS.—Subject to the limitations of this sub-
23 section, a retail electricity supplier or retail natural
24 gas supplier may use electricity savings or natural
25 gas savings purchased pursuant to a bilateral con-

1 tract from another retail electricity supplier or retail
2 natural gas supplier, a State, or a third-party effi-
3 ciency provider to meet the applicable performance
4 standard under subsection (c).

5 “(2) REQUIREMENTS.—Electricity savings or
6 natural gas savings purchased and used for compli-
7 ance under this subsection shall be—

8 “(A) measured and verified in accordance
9 with subsection (e);

10 “(B) reported in accordance with sub-
11 section (e); and

12 “(C) achieved within the same State as is
13 served by the retail electricity supplier or retail
14 natural gas supplier.

15 “(3) EXCEPTION.—Notwithstanding paragraph
16 (2)(C), a State regulatory authority may authorize a
17 retail electricity supplier or a retail natural gas sup-
18 plier regulated by the State regulatory authority to
19 purchase savings achieved in a different State, if—

20 “(A) the savings are achieved within the
21 same power pool; and

22 “(B) the State regulatory authority that
23 regulates the purchaser oversees the measure-
24 ment and verification of the savings pursuant to

1 the procedures and standards applicable in the
2 State in which the purchaser is located.

3 “(4) REGULATORY APPROVAL.—Nothing in this
4 subsection limits or affects the authority of a State
5 regulatory authority to require a retail electricity
6 supplier or retail natural gas supplier that is regu-
7 lated by the State regulatory authority to obtain the
8 authorization or approval of the State regulatory au-
9 thority of a contract for transfer of electricity sav-
10 ings or natural gas savings under this subsection.

11 “(5) LIMITATIONS.—To optimize the achieve-
12 ment of cost-effective efficiency potential, the Sec-
13 retary may prescribe such limitations as the Sec-
14 retary determines appropriate with respect to the
15 proportion of the compliance obligation of a retail
16 electricity or natural gas supplier under the applica-
17 ble performance standards under subsection (c) that
18 may be met using electricity savings or natural gas
19 savings that are purchased under this subsection.

20 “(e) EVALUATION, MEASUREMENT, AND
21 VERIFICATION OF SAVINGS.—

22 “(1) REGULATIONS.—The regulations promul-
23 gated pursuant to subsection (b) shall—

24 “(A) be based on—

1 “(i) the Uniform Methods Project of
2 the Department of Energy;

3 “(ii) the National Standard Practice
4 Manual for Assessing the Cost-Effective-
5 ness of Energy Efficiency Resources, devel-
6 oped by the National Efficiency Screening
7 Project; and

8 “(iii) other best practices recognized
9 in the energy efficiency industry; and

10 “(B) include—

11 “(i) procedures and standards for
12 evaluating, measuring, and verifying elec-
13 tricity savings and natural gas savings that
14 count towards the performance standards
15 established under subsection (c) that—

16 “(I) specify the types of energy
17 efficiency and energy conservation
18 measures that may be counted;

19 “(II) require that energy con-
20 sumption estimates for customer fa-
21 cilities or portions of facilities in the
22 applicable base and current years be
23 adjusted, as appropriate, to account
24 for changes in weather, level of pro-
25 duction, and building area;

1 “(III) do not prevent overall load
2 growth due to beneficial electrifica-
3 tion;

4 “(IV) account for the useful life
5 of energy efficiency and energy con-
6 servation measures;

7 “(V) allow for savings from a
8 program to be estimated based on ex-
9 trapolation from a representative sam-
10 ple of participating customers;

11 “(VI) include procedures for cal-
12 culating and documenting CHP sav-
13 ings, fuel-switching energy savings,
14 and waste heat energy savings;

15 “(VII) establish methods for cal-
16 culating codes and standards energy
17 savings, including—

18 “(aa) the use of verified
19 compliance rates;

20 “(bb) requiring that the
21 baseline for calculating savings
22 from building energy codes shall
23 be the more stringent of—

24 “(AA) the 2018 Inter-
25 national Energy Conserva-

1 tion Code for residential
2 buildings, or the ASHRAE/
3 ANSI/ IESNA Standard
4 90.1–2016 for commercial
5 buildings; or

6 “(BB) the applicable
7 State building code in effect
8 on the date of enactment of
9 this section; and

10 “(cc) requiring that the
11 baseline for calculating savings
12 from appliance and equipment
13 standards shall be the average ef-
14 ficiency of new appliances and
15 equipment in the applicable one
16 or more categories prior to the
17 adoption and implementation of
18 the new standard;

19 “(VIII) include procedures for
20 calculating and documenting—

21 “(aa) customer facility sav-
22 ings and reductions in distribu-
23 tion system losses of electricity
24 and natural gas that are achieved
25 as a result of smart grid deploy-

1 ment, as described in section
2 1301 of the Energy Independ-
3 ence and Security Act of 2007;
4 and

5 “(bb) reductions in natural
6 gas distribution system losses at-
7 tributable to pipeline repair and
8 replacement programs;

9 “(IX) count only measures and
10 savings that are additional to busi-
11 ness-as-usual customer purchase prac-
12 tices;

13 “(X) ensure that the retail elec-
14 tricity supplier or retail natural gas
15 supplier claiming the electricity sav-
16 ings or natural gas savings, including
17 State and local codes and standards
18 savings, has played a significant role
19 in achieving the savings (including
20 through the activities of a designated
21 agent of the supplier);

22 “(XI) avoid double-counting of
23 savings used for compliance with this
24 section, including transferred savings;

1 “(XII) include electricity savings
2 or natural gas savings from programs
3 administered by retail electricity sup-
4 pliers or natural gas suppliers that
5 are funded by Federal, State, or other
6 sources, unless the funding source
7 specifies otherwise;

8 “(XIII) credit large customer
9 self-directed electricity savings or nat-
10 ural gas savings to the retail elec-
11 tricity supplier or retail natural gas
12 supplier if the large customer receives
13 incentives or rate reductions from the
14 retail electricity supplier or retail nat-
15 ural gas supplier for self-directed en-
16 ergy efficiency improvements;

17 “(XIV) include guidance, as ap-
18 propriate, for additional alternative
19 approaches to evaluate electricity sav-
20 ings and natural gas savings for large
21 commercial and industrial customers
22 in energy-intensive industries that are
23 subject to international competition;

24 “(XV) include procedures for
25 counting electricity savings and nat-

1 ural gas savings achieved by solar
2 heating and cooling technologies, solar
3 light pipe technology, geothermal heat
4 pumps, and other technologies uti-
5 lizing renewable resources that do not
6 produce electricity or gaseous fuel and
7 reduce on-site energy consumption;

8 “(XVI) include procedures for
9 counting electricity savings and nat-
10 ural gas savings achieved by weather-
11 ization measures, such as installing
12 mechanical insulation, repairing or re-
13 placing heating and cooling systems,
14 repairing or replacing windows and
15 doors, performing air sealing, and re-
16 placing lights and appliances with
17 more energy efficient models;

18 “(XVII) include procedures for
19 counting electricity savings and nat-
20 ural gas savings achieved from in-
21 creased utilization of mechanical insu-
22 lation for new, retrofit, and mainte-
23 nance construction for commercial, in-
24 dustrial, public, and nonprofit build-
25 ings and facilities;

1 “(XVIII) in any State in which
2 the State regulatory authority has
3 designated 1 or more entities to ad-
4 minister electric ratepayer-funded effi-
5 ciency programs approved by the
6 State regulatory authority, provide
7 that electricity savings and natural
8 gas savings achieved through those
9 programs shall be distributed propor-
10 tionally among retail electricity sup-
11 pliers and retail natural gas suppliers;

12 “(XIX) include guidance for re-
13 tail electricity suppliers and retail nat-
14 ural gas suppliers to calculate and
15 document business-as-usual consump-
16 tion projections;

17 “(XX) include guidance for esti-
18 mating savings using information
19 from the database established under
20 paragraph (3) based on similar meas-
21 ures and programs in other settings
22 with appropriate adjustments, as nec-
23 essary; and

1 “(XXI) incorporate advances in
2 the science of policy evaluation, such
3 as the use of—

4 “(aa) randomized control
5 trials;

6 “(bb) other experimental
7 and quasi-experimental ap-
8 proaches; and

9 “(cc) large data sets and
10 machine learning techniques; and

11 “(ii) procedures and standards for
12 third-party verification of reported elec-
13 tricity savings or natural gas savings.

14 “(2) NATIONAL ACADEMY OF SCIENCES
15 STUDY.—Not later than 180 days after the date of
16 enactment of this section, the Secretary shall offer
17 to enter into an agreement with the National Acad-
18 emy of Sciences, under which the Academy shall—

19 “(A) evaluate existing state-of-the-art
20 methods for evaluating energy efficiency policies
21 and measures;

22 “(B) identify approaches in program eval-
23 uation literature that may be brought into the
24 energy efficiency domain, including—

1 “(i) randomized control trials and
2 other experimental or quasi-experimental
3 approaches;

4 “(ii) control of confounding factors;

5 “(iii) longitudinal studies;

6 “(iv) assessments by neutral arbiters;

7 and

8 “(v) disclosure of data for replication;

9 and

10 “(C) not later than 18 months after the
11 date of enactment of this section, publish a re-
12 port that includes—

13 “(i) a description of the evaluation
14 under subparagraph (A);

15 “(ii) a description of the approaches
16 identified under subparagraph (B); and

17 “(iii) recommendations for advancing
18 and adopting rigorous state-of-the-art
19 methods for evaluating energy efficiency
20 policies and measures.

21 “(3) ENERGY EFFICIENCY PROGRAM EVALUA-
22 TION DATABASE.—

23 “(A) IN GENERAL.—The Secretary shall
24 establish and maintain a searchable public data-
25 base, accessible on the website of the Depart-

1 ment of Energy, that contains a list of random-
2 ized control trials and other experimental or
3 quasi-experimental evaluations of energy effi-
4 ciency programs.

5 “(B) REQUIREMENTS.—Each trial or eval-
6 uation on the list described in subparagraph
7 (A) shall include, at a minimum—

8 “(i) the State in which the trial or
9 evaluation was conducted;

10 “(ii) the type of trial or evaluation
11 conducted;

12 “(iii) the type of program evaluated;

13 “(iv) an abstract or summary of the
14 program evaluated;

15 “(v) a summary of the trial or evalua-
16 tion methodology;

17 “(vi) the revealed energy savings from
18 the trial or evaluation; and

19 “(vii) to the extent practicable, the
20 underlying data used to conduct the trial
21 or evaluation.

22 “(f) ENFORCEMENT AND JUDICIAL REVIEW.—

23 “(1) REVIEW OF RETAIL SUPPLIER REPORTS.—

24 “(A) IN GENERAL.—The Secretary shall
25 review each report submitted to the Secretary

1 by a retail electricity supplier or retail natural
2 gas supplier under subsection (c) to verify that
3 the applicable performance standards under
4 subsection (c) have been met.

5 “(B) EXCLUSION.—In determining compli-
6 ance with the applicable performance standards
7 under subsection (c), the Secretary shall ex-
8 clude reported electricity savings or natural gas
9 savings that are not adequately demonstrated
10 and documented, in accordance with the regula-
11 tions promulgated under this section.

12 “(2) PENALTY FOR FAILURE TO DOCUMENT
13 ADEQUATE SAVINGS.—If a retail electricity supplier
14 or a retail natural gas supplier fails to demonstrate
15 compliance with an applicable performance standard
16 under subsection (c), or to pay to the State an appli-
17 cable alternative compliance payment under sub-
18 section (g), the Secretary shall assess against the re-
19 tail electricity supplier or retail natural gas supplier
20 a civil penalty in an amount equal to, as adjusted
21 for inflation in accordance with such regulations as
22 the Secretary may promulgate—

23 “(A) \$100 per megawatt hour of electricity
24 savings or alternative compliance payment that

1 the retail electricity supplier failed to achieve or
2 make, respectively; or

3 “(B) \$10 per million Btu of natural gas
4 savings or alternative compliance payment that
5 the retail natural gas supplier failed to achieve
6 or make, respectively.

7 “(3) OFFSETTING STATE PENALTIES.—The
8 Secretary shall reduce the amount of any penalty
9 under paragraph (2) by the amount paid by the rel-
10 evant retail electricity supplier or retail natural gas
11 supplier to a State for failure to comply with the re-
12 quirements of a State energy efficiency resource
13 standard during the same compliance period, if the
14 State standard—

15 “(A) is comparable in type to the Federal
16 performance standard established under this
17 section; and

18 “(B) is more stringent than the applicable
19 performance standard under subsection (c).

20 “(4) USE OF PAYMENTS.—

21 “(A) DEFINITION OF COVERED RATE.—In
22 this paragraph, the term ‘covered rate’ means
23 the proportion that—

24 “(i) the amount of penalty payments
25 made by retail electricity suppliers and

1 natural gas suppliers in a State under
2 paragraph (2); bears to

3 “(ii) the total amount of penalty pay-
4 ments collected by the Secretary under
5 that paragraph.

6 “(B) USE OF PAYMENTS.—Penalty pay-
7 ments collected under paragraph (2) by the
8 Secretary shall be—

9 “(i) provided to each State at the cov-
10 ered rate for the State; and

11 “(ii) used by the State to implement
12 cost-effective energy efficiency programs
13 that—

14 “(I) to the maximum extent prac-
15 ticable, achieve electricity savings and
16 natural gas savings in the State suffi-
17 cient to make up the deficit associated
18 with the penalty payments; and

19 “(II) are measured and verified
20 in accordance with the applicable pro-
21 cedures and standards established
22 under subsection (e).

23 “(5) ENFORCEMENT PROCEDURES.—The Sec-
24 retary shall assess a civil penalty, as provided under
25 paragraph (2), in accordance with the procedures

1 described in section 333(d) of the Energy Policy and
2 Conservation Act.

3 “(6) JUDICIAL REVIEW.—

4 “(A) IN GENERAL.—Any person adversely
5 affected by a final action taken by the Sec-
6 retary under this section, other than the assess-
7 ment of a civil penalty, may use the procedures
8 for review described in section 336(b) of the
9 Energy Policy and Conservation Act.

10 “(B) REFERENCE.—In this paragraph,
11 references to a rule in section 336(b) of the En-
12 ergy Policy and Conservation Act shall be con-
13 sidered to refer also to all other final actions of
14 the Secretary under this section other than the
15 assessment of a civil penalty.

16 “(g) STATE ADMINISTRATION.—

17 “(1) IN GENERAL.—Upon receipt of an applica-
18 tion from the Governor of a State (including the
19 Mayor of the District of Columbia), the Secretary
20 may authorize the State to implement a State en-
21 ergy efficiency program in lieu of the Federal pro-
22 gram established under subsection (b) if the Sec-
23 retary determines that the requirements of such
24 State program meet or exceed the requirements of
25 such Federal program, including—

1 “(A) achieving electricity savings and nat-
2 ural gas savings that are equal to or greater
3 than savings required under the applicable per-
4 formance standards established under sub-
5 section (c);

6 “(B) reviewing reports and verifying elec-
7 tricity savings and natural gas savings achieved
8 in the State (including savings transferred from
9 outside the State); and

10 “(C) if applicable, collecting any alter-
11 native compliance payments under paragraph
12 (4) and using the payments to implement cost-
13 effective efficiency programs.

14 “(2) SECRETARIAL DETERMINATION.—Not
15 later than 180 days after the date on which a com-
16 plete application is received by the Secretary under
17 this subsection, the Secretary after public notice and
18 opportunity for comment shall determine whether to
19 approve or disapprove such application.

20 “(3) ALTERNATIVE MEASUREMENT AND
21 VERIFICATION PROCEDURES AND STANDARDS.—As
22 part of an application pursuant to paragraph (1), a
23 State may request to use alternative measurement
24 and verification procedures and standards from the
25 procedures and standards described in subsection

1 (e), if the State demonstrates that the alternative
2 procedures and standards provide a level of accuracy
3 of measurement and verification that are at least
4 equivalent to the Federal procedures and standards
5 under subsection (e).

6 “(4) ALTERNATIVE COMPLIANCE PAYMENTS.—

7 “(A) IN GENERAL.—As part of an applica-
8 tion submitted under paragraph (1), a State
9 may permit retail electricity suppliers or retail
10 natural gas suppliers to pay to the State, by
11 not later than May 1 of the calendar year im-
12 mediately following the applicable reporting pe-
13 riod, an alternative compliance payment in an
14 amount equal to, as adjusted for inflation in ac-
15 cordance with such regulations as the Secretary
16 may promulgate, not less than—

17 “(i) \$50 per megawatt hour of elec-
18 tricity savings needed to make up any def-
19 icit in achieving electricity savings that
20 would otherwise be required under the ap-
21 plicable performance standard established
22 under subsection (c); or

23 “(ii) \$5 per million Btu of natural gas
24 savings needed to make up any deficit in
25 achieving natural gas savings that would

1 otherwise be required under the applicable
2 performance standard established under
3 subsection (c).

4 “(B) USE OF PAYMENTS.—Alternative
5 compliance payments collected by a State under
6 subparagraph (A) shall be used by the State to
7 implement the State program authorized under
8 this section and to implement cost-effective en-
9 ergy efficiency programs that—

10 “(i) to the maximum extent prac-
11 ticable, achieve electricity savings and nat-
12 ural gas savings in the State sufficient to
13 make up the deficit associated with the al-
14 ternative compliance payments; and

15 “(ii) can be measured and verified in
16 accordance with the applicable procedures
17 and standards under subsection (e) or
18 paragraph (3), as applicable.

19 “(5) REVIEW OF STATE PROGRAM.—

20 “(A) PERIODIC REVIEW.—Every 2 years,
21 the Secretary shall review State programs au-
22 thorized under this section in approximately $\frac{1}{2}$
23 of the States with such authorized State pro-
24 grams, so that each such State program shall
25 be reviewed at least every 4 years.

1 “(B) REPORT.—To facilitate review under
2 subparagraph (A), the Secretary may require a
3 State to submit a report demonstrating the
4 State program authorized under this section
5 meets the requirements of this section, includ-
6 ing—

7 “(i) reports submitted by retail elec-
8 tricity suppliers and retail natural gas sup-
9 pliers to the State demonstrating compli-
10 ance with applicable requirements;

11 “(ii) the impact of applicable require-
12 ments on projected electricity and natural
13 gas demand within the State;

14 “(iii) an accounting of the use of al-
15 ternative compliance payments by the
16 State and the resulting electricity savings
17 and natural gas savings achieved; and

18 “(iv) any other information that the
19 Secretary determines appropriate.

20 “(C) REVIEW UPON PETITION.—Notwith-
21 standing subparagraph (A), upon receipt of a
22 public petition containing credible allegation of
23 substantial deficiencies of a State program au-
24 thorized under this section, the Secretary shall
25 promptly re-review the State program.

1 “(D) DEFICIENCIES.—

2 “(i) IN GENERAL.—In completing a
3 review of a State program authorized
4 under this section, if the Secretary finds
5 deficiencies, the Secretary shall—

6 “(I) notify the State of the defi-
7 ciencies;

8 “(II) direct the State to correct
9 the deficiencies; and

10 “(III) require the State to report
11 to the Secretary on progress made by
12 not later than 180 days after the date
13 on which the State receives notice
14 under subclause (I).

15 “(ii) SUBSTANTIAL DEFICIENCIES.—If
16 the deficiencies are substantial, the Sec-
17 retary shall—

18 “(I) disallow the reported elec-
19 tricity savings or natural gas savings
20 that the Secretary determines are not
21 credible due to deficiencies;

22 “(II) re-review the State program
23 2 years after the date on which the
24 original review was completed; and

1 “(III) if substantial deficiencies
2 remain uncorrected after the review
3 provided for under subclause (II), re-
4 voke the authorization for the State to
5 implement a State program under this
6 section.

7 “(6) CALLS FOR REVISION OF STATE APPLICA-
8 TIONS.—As a condition of maintaining the author-
9 ization to implement a State program under this
10 section, the Secretary may require the State to sub-
11 mit a revised application under paragraph (1) if the
12 Secretary has—

13 “(A) established new or revised perform-
14 ance standards under subsection (c);

15 “(B) promulgated new or substantially re-
16 vised measurement and verification procedures
17 and standards under subsection (e); or

18 “(C) otherwise substantially revised the
19 Federal program established under this section.

20 “(h) INFORMATION AND REPORTS.—In accordance
21 with section 13 of the Federal Energy Administration Act
22 of 1974, the Secretary may require any retail electricity
23 supplier, retail natural gas supplier, third-party efficiency
24 provider, or any other entity that the Secretary determines

1 appropriate, to provide any information the Secretary de-
2 termines appropriate to carry out this section.

3 “(i) COST RECOVERY, FIXED COST RECOVERY, AND
4 SHAREHOLDER INCENTIVES.—Each State regulatory au-
5 thority is encouraged to review the rules and regulations
6 of the State regulatory authority to ensure that utilities
7 under its jurisdiction can—

8 “(1) recover the direct costs of energy efficiency
9 programs;

10 “(2) fully recover authorized fixed costs, includ-
11 ing lost margins from lower annual sales due to en-
12 ergy efficiency programs; and

13 “(3) earn an incentive for shareholders if the
14 energy efficiency standards are achieved.

15 “(j) STATE LAW.—Nothing in this section diminishes
16 or qualifies any authority of a State or political subdivision
17 of a State to adopt or enforce any law or regulation re-
18 specting electricity savings or natural gas savings, includ-
19 ing any law or regulation establishing energy efficiency re-
20 quirements that are more stringent than those under this
21 section, except that no State law or regulation shall relieve
22 any person of any requirement otherwise applicable under
23 this section.”.

1 **SEC. 6. PROGRAM REVIEW.**

2 (a) NATIONAL ACADEMY OF SCIENCES REVIEW.—

3 The Secretary of Energy shall enter into a contract with
4 the National Academy of Sciences under which the Na-
5 tional Academy of Sciences shall, not later than July 1,
6 2025, and every 10 years thereafter, submit to Congress,
7 the Federal Energy Regulatory Commission, and the Sec-
8 retary of Energy a comprehensive evaluation of the imple-
9 mentation (including outcomes) of sections 610 and 611
10 of the Public Utility Regulatory Policies Act of 1978 (as
11 added by this Act), including—

12 (1) an evaluation of the effectiveness of imple-
13 mentation of such sections, including the specific de-
14 sign elements used in increasing the efficiency of re-
15 tail natural gas and electricity distribution and con-
16 sumption and increasing the deployment of renew-
17 able electricity capacity;

18 (2) the opportunities for additional technologies
19 and sources of efficiency and renewable electricity
20 that have emerged since the date of enactment of
21 this Act;

22 (3) the impact of implementation of such sec-
23 tions on the reliability of electricity and natural gas
24 supply;

1 (4) the net benefits or costs of the implementa-
2 tion of such sections to the United States and the
3 States, including—

4 (A) the effects on electricity and natural
5 gas demand and prices;

6 (B) the economic development benefits of
7 investment;

8 (C) environmental costs and benefits;

9 (D) the impacts on public health and
10 health care costs; and

11 (E) avoided costs related to environmental
12 and congestion mitigation investments that oth-
13 erwise would have been required;

14 (5) an assessment of the benefits and costs of
15 increasing the performance standards established
16 under section 611(c) of the Public Utility Regulatory
17 Policies Act of 1978 (as added by this Act);

18 (6) the feasibility, advantages, and disadvan-
19 tages of alternative models for demonstrating com-
20 pliance with a Federal energy efficiency resource
21 standard, including—

22 (A) establishing a national trading system
23 for energy efficiency credits; or

24 (B) demonstrating compliance through re-
25 ductions in the projected amount of electricity

1 and natural gas delivered by retail electricity
2 suppliers and retail natural gas suppliers, rath-
3 er than on measured and verified electricity
4 savings and natural gas savings; and

5 (7) recommendations regarding potential
6 changes to implementing such sections, including
7 changes to regulations and procedures, or to related
8 public policies.

9 (b) RECOMMENDATIONS TO CONGRESS.—Not later
10 than January 1, 2026, and every 10 years thereafter, the
11 Secretary of Energy shall submit to the Committee on En-
12 ergy and Commerce of the House of Representatives and
13 the Committee on Energy and Natural Resources of the
14 Senate a report making recommendations for modifica-
15 tions and improvements to implementation of sections 610
16 and 611 of the Public Utility Regulatory Policies Act of
17 1978 (as added by this Act), including an explanation of
18 the inconsistencies, if any, between the recommendations
19 of the Secretary of Energy and the recommendations in-
20 cluded in the most recent evaluation by the National Acad-
21 emy of Sciences under subsection (a).

22 **SEC. 7. CONFORMING AMENDMENT.**

23 The table of contents of the Public Utility Regulatory
24 Policies Act of 1978 (16 U.S.C. prec. 2601) is amended

- 1 by adding at the end of the items relating to title VI the
- 2 following:

“Sec. 609. Rural and remote communities electrification grants.

“Sec. 610. Federal renewable electricity standard.

“Sec. 611. Federal energy efficiency resource standard for retail electricity and
natural gas suppliers.”.

